TANK NOTES

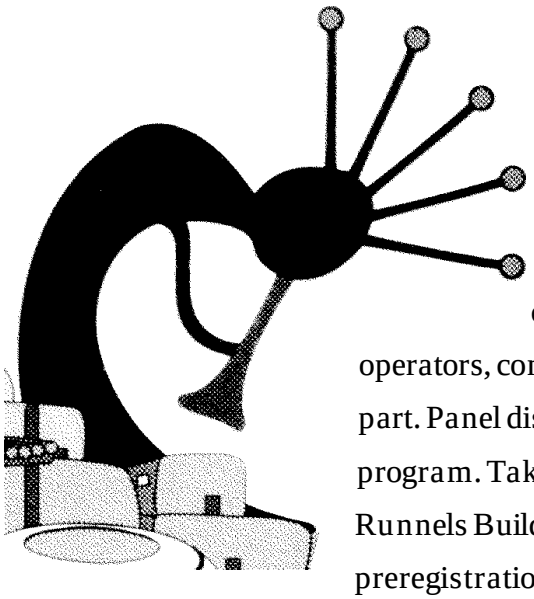
STATE OF
NEW MEXICO
ENVIRONMENT
DEPARTMENT

... A Newsletter from
the Underground
Storage Tank Bureau

PUBLISHED BY THE NEW MEXICO ENVIRONMENT DEPARTMENT AND THE INSTITUTE OF PUBLIC LAW

VOL. 8, NO. 1 SPRING 1995

See you in June
for the Bioremediation Conference



June 22-23 are the dates of the Remedial Action Program's bioremediation conference. The conference, to be held from 8:45 a.m. to 5 p.m. each day, is intended to provide a forum for the exchange of information about the various aspects of this cleanup method. Vendors, UST regulators, owners and operators, consultants, and other environmental professionals are taking part. Panel discussions, poster sessions, and speakers fill out the two-day program. Take advantage of this free conference taking place in the Harold Runnels Building auditorium and adjoining classrooms in Santa Fe. No preregistration is required. A reception for everyone is scheduled for 5 p.m. to 7 p.m. on Thursday June 22 at the Eldorado Hotel, 309 West San Francisco in Santa Fe.

Panelists and speakers will present bioremediation processes, case histories, and promising approaches, with emphasis on petroleum contamination. Out-of-state speakers include Calvin H. "Herb" Ward of Rice University in Houston, TX; R. Ryan Dupont, Utah Water Research Lab; and Michael Piotrowski, Matrix Remedial Technologies in Colorado.

The conference will serve as a public forum for regulators, consultants, and the regulated community to develop a common language for the understanding and use of bioremediation technology at contaminated sites. For more information, call Anna Richards at (505) 827-0173.

A Quarterly Newsletter of the Underground Storage Tank Bureau, New Mexico Environment Department

TANK NOTES

Mark E. Weidler,
NMED Secretary
Edgar T. Thornton,
NMED Deputy Secretary

PUBLISHERS
Underground Storage Tank Bureau, New Mexico Environment Department and the Institute of Public Law, University of New Mexico

USTB EDITOR
John French
IPL EDITORS
Kathy Grassel, Judy Flynn-O'Brien

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The information in this newsletter is directed at the UST owner/operator population and is provided as a general information guide. It is not intended to replace, interpret or modify manufacturers' protocols, or the rules, regulations or requirements of local, state or federal government, nor is it intended as legal advice.

Thank you for your interest in *Tank Notes*. We welcome your comments and suggestions. Send address changes and correspondence to: New Mexico Environment Department, Underground Storage Tank Bureau, Harold Runnels Building, 1190 St. Francis Drive, P.O. Box 26110, Santa Fe, New Mexico 87502

UST Bureau Field Inspectors for Tank Installations, Closures and Major Modifications, and Compliance

Albuquerque NMED District Office
(Albuquerque, Belen, Bernalillo, Los Lunas, Santa Rosa, Socorro)
Mark Coffman, Robert Miller, Dan Lopez, John French, John Cochran
4131 Montgomery NE
Albuquerque, NM 87109
505/841-9459

Clovis NMED Field Office
(Clovis, Tucumcari)
Harry Gunn
212 E. Grand
Clovis, NM 88101
505/762-0173

Farmington NMED Field Office
(Aztec, Bloomfield, Farmington, Cuba)
Dan Claypool
724 W. Animas
Farmington, NM 87401
505/325-2458

Grants NMED Field Office
(Gallup, Grants)
Norman Pricer
1212½ Lobo Canyon Road
Grants, NM 87020
505/287-8845

Hobbs NMED Field Office
(Hobbs, Carlsbad)
Gary Blocker
726 E. Michigan, Ste. 165
Hobbs, NM 88240
505/393-4302

Las Cruces NMED District Office
(Alamogordo, Las Cruces, Deming, Silver City, T or C)
Len Murray
Abel Ramirez
1001 N. Solano Drive
P.O. Box 965
Las Cruces, NM 88004
505/524-6300

Las Vegas NMED Field Office
(Clayton, Las Vegas, Springer, Raton)
Adrian Jaramillo
1800 New Mexico Avenue
Las Vegas, NM 87701
505/425-6764

Roswell NMED District Office
(Artesia, Roswell, Ruidoso)
Teresa McMillan
1914 West 2nd St.
Roswell, NM 88201
505/624-6123

UST Bureau in Santa Fe
(Northern NM, other areas not covered)
Shelda Sutton-Mendoza, Program Manager 505/827/2910
Ruben Baca 505/827-2914
Melanie Deason 505/827-0079
1190 St. Francis Drive - N2150
P.O. Box 26110
Santa Fe, NM 87502

Contents

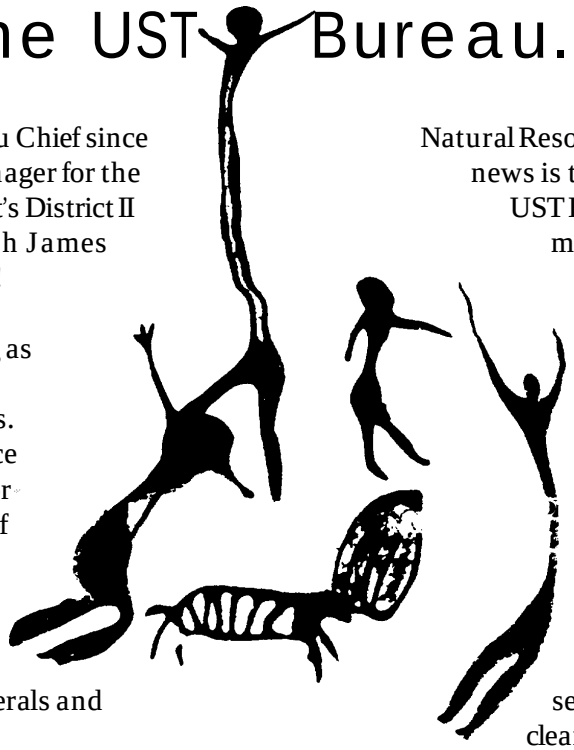
See you in November
for the 1995
UST Conference and Trade Show

Anyone interested in participating or exhibiting at this event is invited to request information and mailings concerning the schedule, exhibit space, and accommodations. Topics will be site remediation, regulatory compliance, upgrades, release detection, facility operation, and more. Exhibitors will offer operating equipment, remediation technology, upgrade products, tank testing, monitoring devices, installation services, and consulting expertise.

Participants and exhibitors are invited to request scheduling, topic, accommodation, and exhibit space information and registration materials by contacting:

R.T. Nielson Company
1995 UST Conference Organizer
P.O. Box 1902
Albuquerque, New Mexico 87103
Tel: 1-800-ENV-USTB (1-800-368-8782)
Fax: 1-800-FAX-USTB (1-800-329-8782)

comings and goings at the UST Bureau...



James Bearzi, UST Bureau Chief since 1992, is now District Manager for the Environment Department's District II office in Santa Fe. We wish James the best of luck in his new position!

Shelda Sutton-Mendoza is serving as Acting Bureau Chief and welcomes your calls if you have any questions. **Ruben Baca** is taking Shelda's place temporarily as program manager for the Prevention / Inspection Section of the Bureau.

As we announced in the last issue, **Kathy Garland** accepted an appointment in the Energy, Minerals and Natural Resources Department. The new news is that **Gale Hill** is joining the UST Bureau as the program manager for the Bureau's Reimbursement Program. Gale comes to the Bureau from the New Mexico Health Department. Previously, Gale was in charge of the Cost Recovery Unit with the former Environmental Improvement Division. She looks forward to working with UST owners and their contractors as they seek reimbursement for their cleanup costs.

Department authorizes alternatives for assessing tanks prior to upgrade

The American Society of Testing and Materials has adopted an emergency standard for assessing the integrity of a buried steel tank without placing a person in the tank. The New Mexico Environment Department will allow UST owners and operators to use this standard when deciding whether to upgrade their tanks with cathodic protection. ASTM Emergency Standard 40 - 94 can be used if combined with monthly monitoring after upgrade.

As UST owners and operators know, underground storage tanks that do not meet the new tank standards adopted in 1988 must be replaced or upgraded no later than December 22, 1998. The New Mexico Underground Storage Tank Regulations (USTR) allow three alternatives for upgrading steel USTs. One of the three alternatives is applying cathodic protection without internally lining the UST. Anyone considering this option must check USTR §401(b)(2), which requires that the integrity of the tank be ensured using one of the following methods:

(i) The tank is internally inspected and assessed to ensure that the tank is structurally sound and free of corrosion holes prior to installing the cathodic protection system;

(ii) The tank has been installed for fewer than 10 years and is monitored monthly for releases in accordance with USTR §603(d) through (h);

(iii) The tank has been installed for fewer than 10 years and is assessed for corrosion holes by conducting two tightness tests that meet the requirements of USTR §603(c) [one test before and one test three to six months after upgrading]; or

(iv) The tank is assessed for corrosion holes by a method that is determined by the Department to prevent releases in a manner that is no less protective of human health and the environment than paragraphs (i) through (iii).

The internal inspection described in (i) requires that a person enter the tank and inspect the interior walls of the tank to ensure that the tank is sound and free of corrosion holes. ASTM Emergency Standard 40 - 94 sets forth for the first time procedures for inspecting and assessing the integrity of steel USTs without putting a person into the UST.

ES 40 - 94 is called the ASTM Emergency Standard for Alternative Procedures for the Assessment of Buried Steel Tanks Prior to the Addition of Cathodic Protection. Adopted November 15, 1994, the emergency standard remains in effect for two years. In the meantime, efforts to make the emergency standard a regular ASTM standard are underway. If these efforts fail, the emergency standard ceases to exist at the end of the two year period (November 15, 1996).

ASTM Emergency Standard ES 40 - 94 presents methods for assessing a steel UST to determine its suitability for being upgraded with cathodic protection. These methods can be categorized into three different approaches, based on the technologies used:

(1) Data is gathered and analyzed about the tank and its environment, and the UST's remaining life is statistically estimated without placing anything in the UST. These are known as non-invasive procedures;

(2) The UST's thickness is measured over a certain percentage of the interior using an unmanned robot fitted with ultrasound sensors; or

(3) A visual assessment using a special video camera is combined with procedures under (1) above.

The emergency standard also requires a tightness test.

Following the lead of the U.S. Environmental Protection Agency, the Environment Department has approved the combination of:

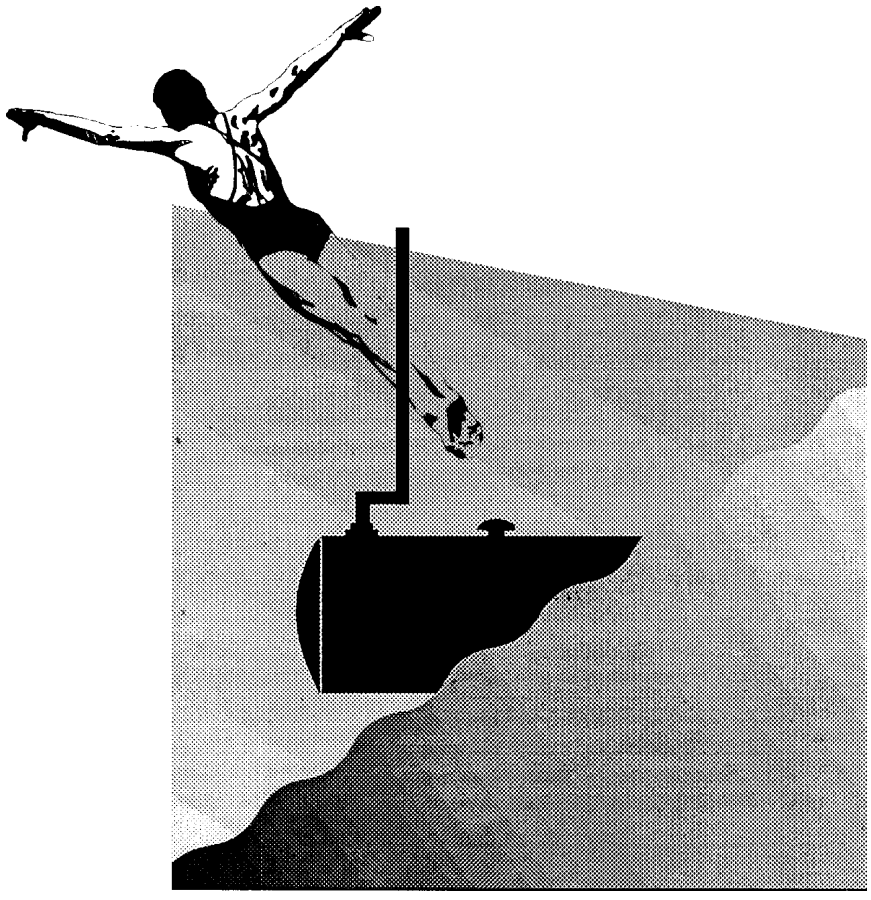
(1) the implementation of the procedures in ASTM Emergency Standard ES 40 - 94: and

(2) monthly monitoring for releases in accordance with USTR §603(d) - (h) following tank upgrade, as a method to ensure the integrity of the tank prior to upgrade.

The leak detection methods permitted by USTR §603(d) through (h) are interstitial monitoring, automatic tank gauging, ground water and vapor monitoring, and statistical inventory reconciliation or other methods meeting the referenced regulations. The combination of tank tightness testing and inventory control is not included in the list. Tightness testing and inventory control cannot be used as the method of leak detection for a tank that has been upgraded using ASTM ES 40 - 94.

Like EPA, the Department has concluded that the two-prong approach being permitted constitutes a method of assessing the condition of the tank that is no less protective of human health and the environment than the methods listed in USTR §401(b)(2)(i) through (iii), for the two-year period of time that ASTM Emergency Standard 40 - 94 is valid. NMED believes that the combination of ES 40 - 94 and monthly monitoring is a valid approach because of the available performance data, the concern for the safety of UST workers, the protection afforded by monthly monitoring, and the lower expense and likelihood of greater compliance with the upgrading requirements.

If you have any further questions, please call Ruben Baca at the UST Bureau in Santa Fe (827-2910).



YOU'RE OUTA THE TANK WITH THIS NEW ASTM STANDARD.

A little happy news

Good will by companies in the UST industry has made it possible for members of a local service organization to continue their community service. Last year, the Paralyzed Veterans of America took possession of a former auto service station on Gibson SE in Albuquerque. An abandoned waste oil tank was found beside the station building they were converting to office space. The volunteers managing the office had no income or funds to pay for the tank removal.

A UST inspector familiar with the plight of this volunteer group told several companies about the problem. A number of businesses came forward. In February, one company, A&P Inc., sent in a crew to dig out the tank at no charge. Required soil tests were sent to another company, Anachem, Inc., which made the analysis at no charge. And finally, a third company, D&R Tank, received and disposed of the steel tank without charge.

The UST Bureau staff salutes the above companies for their community spirit. And thanks to the many community-minded companies whose actions have not come to our attention.

Cutting down on cleanup costs

Prevention is the cornerstone of the UST inspection program. The primary way to cut down clean up costs is to prevent releases from underground storage tanks. Releases are prevented when the system is operated in compliance with the UST Regulations. Since February 1, 1991, the UST Bureau has conducted inspections at facilities to determine compliance with the regulations. If a facility is not in compliance, the owner/operator is issued a citation with penalties for the violation (usually $300 per violation). If the owner/operator fails to comply or is a repeat violator, a compliance order with penalties (up to $15,000.00 for release detection), or a district court complaint will be issued.

Since February 1, 1991 the Bureau has conducted 2,905 compliance inspections, and has issued 1,177 citations and 27 compliance orders. Owner/operators have paid $148,650 in penalties. Ninety five percent of the UST facilities are now in compliance with the regulations.

The Department generally prefers to settle compliance orders and district court complaints prior to litigation. Some recent settlements and penalties are listed on the next page.

Please comply with the regulations and prevent pollution. If you have any questions please call the inspector in your area.

Penalty	Violation
$ 5,000	Tightness test results violation
$ 1,500	Release detection violation
$ 7,000	Certificate of compliance violation
$ 1,000	Failure to remove out-of-service UST
$ 1,000	Falure to remove out-of-service UST
$ 7,000	Certificate of compliance violation
$ 1,000	Failure to remove out-of-service UST
$10,000	Failure to remove out-of-service UST
$ 5,000	Repeat release detection violation
$ 2,000	Release detection violation
$ 8,000	Release detection violation
$ 1,000	Failure to remove out-of-service UST
$ 2,500	Release detection violation
$ 5,000	Failure to provide release detection Failure to remove out-of-service UST
$ 1,000	Failure to remove out-of-service UST

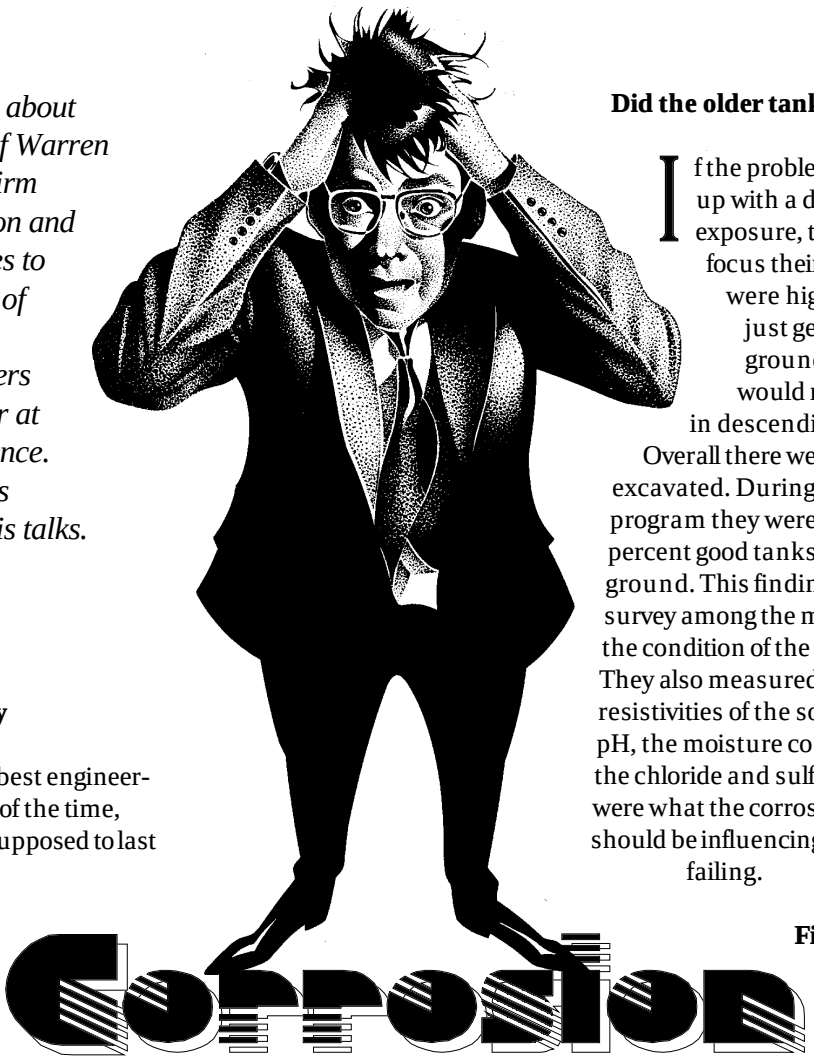
FOR THE RECORD

Please note the following corrections to page 16 of the UST soil and water guidelines in your winter issue. Also, EPA method 504.1 has been amended to EPA Method 504. Copies of the revised guidelines are available by contacting the UST Bureau.

Detection limit(ppb) Water	
Contaminant	**Detection Limit (ppb)**
Benzene	1.00
Ethylbenzene	75.00
Toluene	75.00
Xylenes	62.00
EDB	0.01
EDC	1.00
MTBE	10.00
Naphthalene	<30.00
1,1,2 TCE	50.00
PCE	10.00
Benzo-a-pyrene	<0.7

Corrosion: the curse of all tank owners?

Warren Rogers knows about corrosion. President of Warren Rogers Associates, a firm providing leak detection and leak prediction services to owners and operators of underground storage tanks since 1978, Rogers was a featured speaker at the 1994 UST Conference. The following article is adapted from one of his talks.



Background and History

According to the best engineering judgment of the time, tanks were supposed to last 35 years regardless of the environment of where they were installed. Twenty five years ago, people in the oil industry were deeply puzzled as to why tanks that were supposed to last 35 years failed after 3, 5, 15 years; or, alternatively, they seemed to last forever. These oil companies set out to learn why and what they could do about it. They concluded that the unprotected steel tank wasn't working for them. They would need to move on to another technology. The major problem was the sheer volume of tanks they had. Exxon had 24,000 tanks. Chevron had 20,000. Replacing all these tanks was not a question of money for them. Of great concern was the manufacturing capacity for new tanks. On top of that were the manpower limitations. Who would do the necessary design and removing and replacing of such a massive population? Consequently, they needed an assessment of reasons for the problem, and from that, devise a means of predicting when these tanks were going to fail.

Did the older tanks fail first?

If the problem-solvers could come up with a descending order of exposure, the oil companies could focus their money where risks were highest. Well, why not just get the oldest out of the ground? Mobil decided they would remove all their tanks in descending order of age. Overall there were about 2,000 tanks excavated. During the first years of the program they were removing 60 to 65 percent good tanks, leaving leakers in the ground. This finding led to an overall survey among the member companies as to the condition of the tanks being removed. They also measured the electrical resistivities of the soils, the acidity, the pH, the moisture content of the soil, and the chloride and sulfide content. These were what the corrosion engineers said should be influencing why the tanks were failing.

Findings

They were correct that these variables do cause corrosion. They also came up with a good means of preventing it (that is, cathodic protection). What they found, however, was that age of the tank predicted nothing, and that these variables predicted nothing either. Just a cloud of data. The researchers couldn't determine the *rate* at which corrosion would proceed given the knowledge of all these variables.

What causes corrosion

The underlying cause of corrosion is an electrochemical process. When you put a steel tank in the ground, you've built yourself a big storage battery. The steel in the tank acts like a plate in the battery. The ground around it acts like an electrolyte. A voltmeter will show DC current. The problem is that the flow of that

current converts the steel of that tank into iron oxide, or rust. That's what corrosion is all about.

How long will a tank last

Along with knowing the propensity of the soil to resist the flow of electricity, you have to account for the flow of the current that resistivity is facing. The acidity accounts for the intensity of the current being generated, but if you're not accounting for the resistivity, you don't know what the current flow is. You have to account for all of these in an interacting way. Using a mathematical model of a storage battery, then taking the measured quantities, you can estimate the parameters of the model and explain quite accurately how long that tank will last. What the use of this model clearly demonstrates is that the most counterproductive thing you can do is move the oldest tanks. You're moving the safest tanks in your population and leaving your leakers in the ground.

Why is age of the tank such a poor indicator? The EPA has stated that the most likely period for tanks to fail is around ten years. Warren Rogers Associates has found that no age is a good choice. Everyone asks the question, "What is the average life of a steel tank?" There is no one number that typifies how long tanks are going to last. If you average the life of a steel tank, it's 17.5 years, but it's a meaningless number because it stretches, roughly evenly, from 3 years to 70 years.

So what causes tanks to fail

The way tanks tend to fail is not correlated to age. Corrosion is not a singular kind of effect. Corrosion can take place on a tank in two distinctly different ways. The typical situation that will cause a tank to fail is called point corrosion. It occurs at the time of installation when some anomaly occurs on the surface of the tank. In point corrosion, an electrical current causes a pit to form which will constantly shed the iron oxide formed till the bare metal is exposed to the environment. That pit will proceed through the tank and perforate it.

Not all tanks will experience point corrosion. In fact a significant number don't. If a tank is installed without any anomalies on the surface in clean uniform backfill so that the current that is generated on the surface of the tank is roughly constant over the entire surface, there is no opportunity for a pit to form on the surface of the tank. In a few years you have a fine coating of iron oxide over the entire surface. That stops the corrosion. That tank will outlast all the others. There are examples of tanks 60 and 70 years old — the oldest ones around — taken from highly corrosive soils. Other than that coating of iron oxide, those tanks look as good as the day they were installed. According to Warren Rogers Associates findings, this kind of uniform iron oxide coating happens on roughly 25 percent of all the tanks.

An argument to leave old, but non-leaking, tanks in the ground

Take a population of tanks installed 25 years ago. Twenty-five percent of those were installed in a manner that caused uniform corrosion; the rest were point-corroded. As time passed, the point corrosion tanks perforated. Ultimately when a tank perforates, you find out about it, and it gets removed from the population. So as time passes we are constantly removing the point corrosion tanks from the population, leading the uniformly corroded tanks behind. So when you get out to 30 years old, those tanks still in the ground, still tight, are the last tanks you'd want to remove from the ground. These tanks are already safer than any replacement tank. That's why removing tanks in descending order of age is a poor idea.

What about coating tanks?

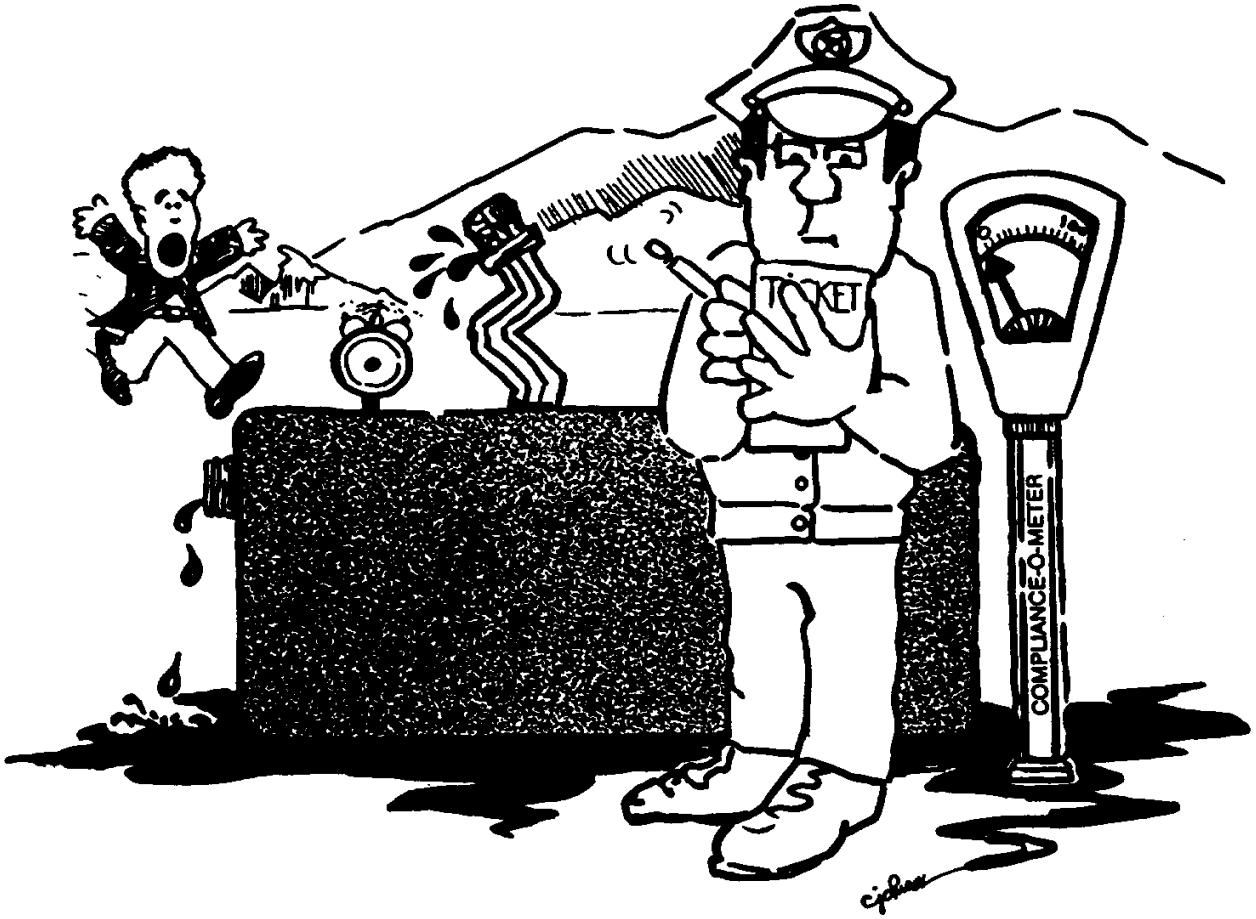
Even if you have a good coating, you have guaranteed point corrosion because inevitably in lowering that tank into the ground you will not have 100 percent coverage with that coating. And if you've got a pinhole in that coating, you've created the little cell that's going to cause the perforation. For that reason it's not good to use steel coating without some form of cathodic protection. Some tank manufacturers have aggressively pushed the idea that their coatings are so good that you don't need to put an anode on that tank to protect it. That's bad economics because, first of all, an anode costs very little. Second, it's next to impossible to get a uniform coating. By going inside and measuring the electrical conductivity from the inside to outside, there's always a gap somewhere in that coating, so you have guaranteed failure.

So why bother with coatings at all?

The purpose of coating is not to protect the tank. Take a steel tank with a very good polyurethane coating with a magnesium anode attached to it to provide cathodic protection. The purpose of the coating is to protect the anode by giving the minimum exposed surface on the tank that the anode must protect. So even if up to 10 percent of the coating were removed during installation, that anode should last 100 years.

Las Cruces Blitz

During April, the Prevention / Inspection Section of the UST Bureau conducted a week-long inspection blitz of the Las Cruces area. Eight inspectors from around the state converged on the area and conducted 104 inspections to determine compliance with the release detection and operation and maintenance requirements of the UST Regulations. The inspectors found 41 facilities out of compliance and issued field citations to the owners and operators. Inspectors plan to blitz more areas in the future. Our compliments to the 63 who were in compliance.



ILLEAKALLY PARKED TANKS WILL BE TICKETED.

Is tank closure in place an alternative to tank removal?

Closing tanks in place not the easiest way to go

BY JOHN FRENCH

Section 801(b) of the Underground Storage Tank Regulations states: "To properly close a tank, owners and operators must empty and clean it by removing all liquids and accumulated sludges. All tanks taken out of service permanently must also be either removed from the ground or filled with an inert solid material." §801 lists four recommended procedures that may be followed for tank cleaning, removal, or closure in place. One procedure, American Petroleum Institute Recommended Practice 1604, discusses closure in place.

Under USTR §802, all permanent tank closures require that measurement be made for the presence of released product. Sampling or monitoring must occur to show the presence, or absence, of a release. If the tank is being closed in place, soil borings must be angled beneath the tank to sample where leaks are more likely to have occurred. In addition, borings must be made under pipe runs to sample beneath any pipes left in place.

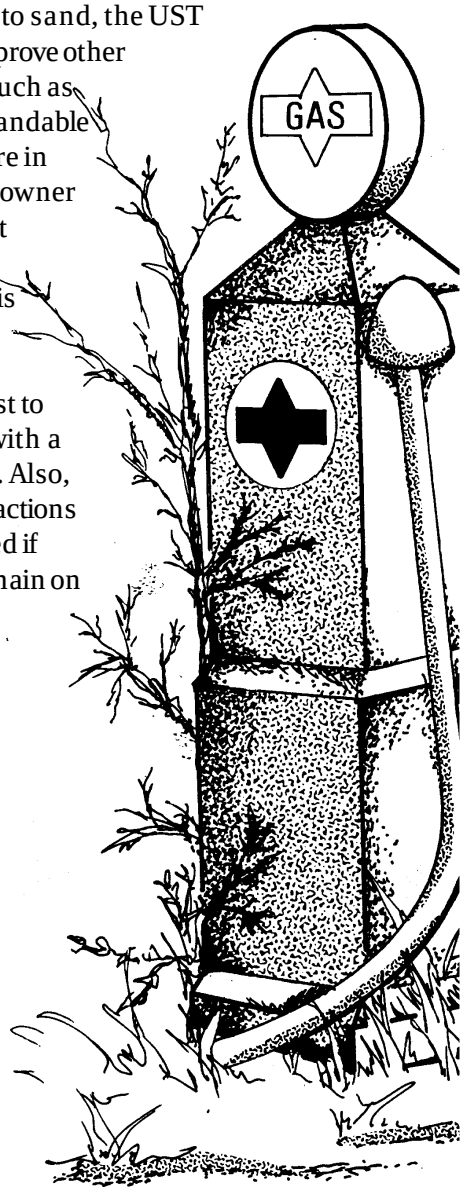
The API Practice 1604 discusses the following procedures:

3.2.2.8 One or more holes may be cut in the tank top if existing tank openings are not adequate for introduction of the inert material to be used to fill the tank.

3.2.2.9 Proceed to introduce a suitable solid inert material through openings in the top of the tank. It is important to fill the tank as full as possible with sand or other inert material. The procedures in 3.2.2.9.1 through 3.2.2.9.3 are intended to minimize any surface settling subsequent to disposal of the tank in place.

3.2.2.10 After the tank is filled with an inert material, all tank openings should be plugged or capped unless it was necessary to cut open the tank top (see 3.2.2.8).

In addition to sand, the UST Bureau may approve other inert materials such as slurries and expandable foams for closure in place. The tank owner or operator must consider the economics of this closure method. There may be a considerable cost to fill large tanks with a concrete slurry. Also, real estate transactions may be impacted if closed tanks remain on the property.



Cleaning up: Bioremediation, Part II

How bugs in the soil help clean up your site

In the second of our *Tank Notes* series of articles on bioremediation, we are borrowing from the Iowa UST newsletter, *Tanks Update,* which published an article in its December 1994 issue. We've revised portions to fit New Mexico.

Bioremediation is a term used for a variety of cleanup approaches. The thing they have in common is using microscopic bugs to eat petroleum. These microbes are usually present in the soil, but often need help to grow. Usually a lack of moisture or oxygen is the only thing holding them back.

Sometimes nutrients such as nitrogen and phosphorus may also be added. Care is needed, however, because nitrates in drinking water can cause a disease called blue baby syndrome. Many other factors also affect bioremediation, such as soil moisture, heat, pH and other chemicals.

Passive Remediation

Another name for passive bioremediation is natural attenuation. This approach lets the bugs work in the natural conditions of the site. If a site has low levels of contamination, loose soil throughout the site, no clay layers, the right soil chemistry and moisture, and no wells or utility trenches to receive or spread contamination, then passive bioremediation may work well.

Although a passive system is sometimes considered doing nothing, monitoring contamination levels, oxygen and/or carbon dioxide are needed to see if the bugs are working.

Many times the bugs need some help. Just like it's hard to grow crops in clay soil without working the soil, it's hard for bugs to thrive in a tight soil. Like a garden that needs some tilling to add air or fertilizer to add nutrients, some sites need things added for the bugs to work well. Active bioremediation can take many forms, one of which is bioventing.

Bioventing

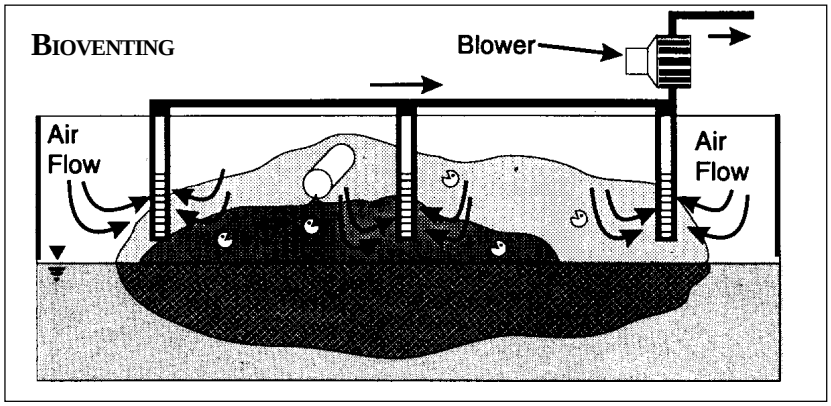
Bioventing helps microbes in the soil by adding air flow above the water table. Air flow is usually created with extraction wells. Sometimes nutrients are also added. (See the diagram below.)

Bioventing uses low air flow, even just changes in barometric pressure, to get oxygen to microbes without drying them too much. This also allows the microbes to eat petroleum instead of just venting contamination to the air.

A similar method, called soil vapor extraction (SVE), uses higher air flow rates to volatilize contamination. In real life, some volatilizing and some biodegrading will occur when either SVE or bioventing is used.

New Mexico has air quality standards for tank sites. It may be necessary to treat the vented contamination, as from an SVE system, which increases the cost of site cleanup. Bioventing can reduce or eliminate contamination that would be vented into the air or treated, but off-gas treatment at bioventing sites may even be required, especially in Bernalillo County.

To see if bioventing is working, contamination levels, oxygen and carbon dioxide in the soil are monitored. Just as people breathe in oxygen and breathe out carbon dioxide, so do bugs. Therefore, respiration tests are used to monitor bioventing. When air flow is turned off, if oxygen levels go down and carbon dioxide levels increase, that means the microbes are working. As time passes, the contamination levels should go down, too.



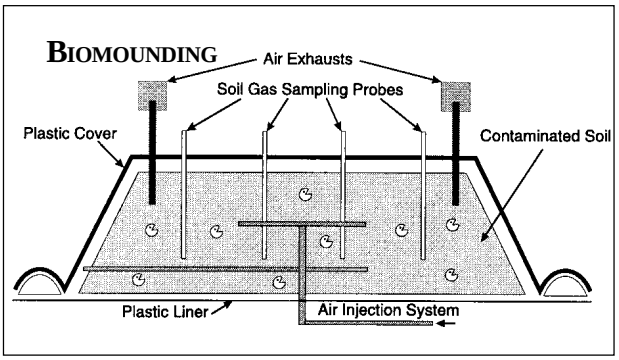
Bioventing can be used with a variety of petroleum products, including gasoline, jet fuels, kerosene and diesel fuel. It is most often used with mid-weight petroleum products such as diesel fuel and jet fuel, because lighter products such as gasoline tend to volatilize easily and can be removed faster with SVE. Heavier products such as lubricating oils generally take longer to biodegrade than lighter products.

If clay soil is to be cleaned up, SVE will not work very well and bioventing is not likely to be effective. Other technologies should be considered, such as removing the

soil and treating it by landfarming, biomounding, or thermal desorption.

Biosparging

Biosparging is like bioventing, but air is delivered below the water table. Oxygen is delivered at a slow rate to encourage biodegradation of contaminants in groundwater rather than volatilization. It is most effective in permeable aquifers.



Special care is needed to design sparging systems so they will not push petroleum vapors into basements or utilities, causing toxic conditions or an explosion.

The methods described so far have all been treating the contamination left in place (in situ). Contaminated material can also be removed for treatment (ex situ). Some examples of ex situ bioremediation include landfarming (See *Tank Notes*, Winter 93/94, p. 11), biomounding, and bioreactors.

Advantages of Bioventing

• Uses readily available equipment; easy to install.

• Creates minimal disturbance to site operations. Can be used to address inaccessible areas such as under buildings or streets.

• Requires short treatment times: usually 6 months to 2 years under optimal conditions.

• Is cost competitive: $45-$140 per ton of contaminated soil.

• Easily combined with other technologies (such as air sparging, groundwater extraction).

Disadvantages of Bioventing

• High contaminant concentrations may initially be deadly to microbes.

• Not applicable for certain site conditions (such as high clay content or variable soils).

• Cannot always achieve very low cleanup standards.

• Permits generally required for nutrient injection wells (if used).

Biomounding

Biomounding means digging up contaminated soil and putting it in a special mound for "bugs" to degrade the petroleum. This mound allows better control for adding air, nutrients and water.

Some New Mexico soils are difficult to clean up because either they are clay soils (with particles packed tightly together which makes it hard to move air or water through it) or there are irregular pockets of tight soils which limit flow. Biomounding can overcome these limits by mixing the soils and sometimes by adding bulking agents such as straw or wood chips.

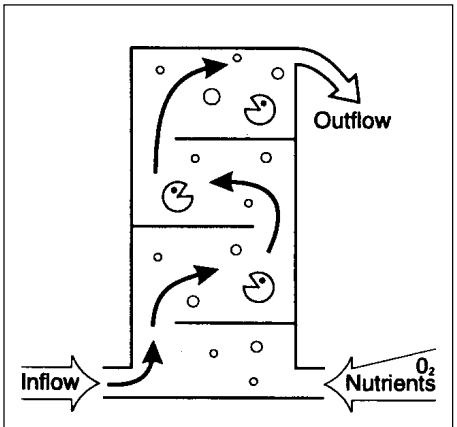
Biomounding is most appropriate for shallow contamination sites that cover a large horizontal area. This is a low-maintenance method with a relatively short treatment time. It may be limited by costs for large overexcavations and whether contamination is accessible for digging. In arid New Mexico, it may be necessary to add water to keep microbes active.

Bioreactors

Bioreactors are like wastewater treatment systems that either suspend microbes in a liquid or provide special surfaces for microbes to attach to. Bioreactors can treat contaminated groundwater after it has been pumped out of the ground.

A fixed film bioreactor is an example of an attached system. Water with food (petroleum contamination) is trickled over a series of plates with microbes attached to them.

This system produces sludge which is generally not hazardous, but requires disposal. Microbes need a continuous supply of food, so if water coming in is weakly contaminated, the microbes may die off, and another approach would be needed to "polish" the contaminated water. Some bioreactors are in use for off-gas treatment in New Mexico. They seem to work best on low concentrations of contaminants and low air flow rates.

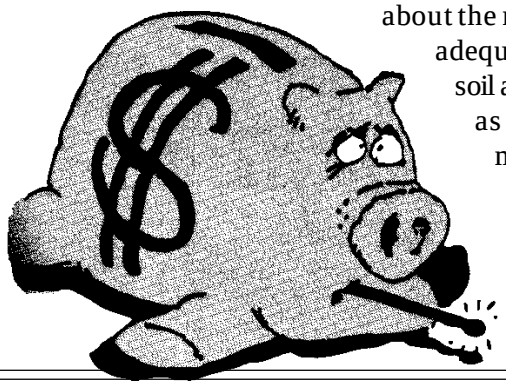


FIXED FILM BIOREACTOR

Half penny not enough

UST Committee addresses concerns of regulated community

The UST community and consultants came to May's UST Committee meeting deeply worried about the status of the corrective action fund since the legislature diverted half of the penny-per-gallon loading fee away from UST cleanups. Division director Pete Maggiore said that just reimbursing already-approved workplans adds up to $6 million, leaving only $1.5 million through June 30, 1996 if no additional workplans are approved and the supplemental $3 million is not used. In a fund update report, Acting Bureau Chief Shelda Sutton-Mendoza said the Bureau was looking at ways to prioritize sites to make best use of the $1.5 million. Some audience members expressed concern that new legislation requiring that payment be based on financial need if the fund got low would penalize owners/operators in good standing. Sutton-Mendoza said that the Department plans to pay claims on workplans that have already been approved. The approval of future workplans may be accompanied by a letter explaining the extent to which the owner or operator might expect reimbursment in light of the condition of the fund.



Committee member Bruce Thomson made a motion that the committee contact the Governor about the members' concern for the adequacy of the fund to remediate soil and groundwater and to serve as a financial responsibility mechanism for owners and operators.

Maggiore reported that Environment Department Secretary Mark Weidler approached legislators in a recent Legislative Finance Committee meeting to restore the half penny to the fund. Maggiore also said the Governor had agreed to meet with the legislators to explore other possible revenue streams. Red McGehee of the Petroleum Marketers Association said that LFC members he'd visited with were concerned with the fund's survival and that they'd be willing to work with the department, but he also thought it was important to meet with the Governor.

Committee member Charlie Hooker agreed that the regulated community needs a forum to express their misgivings about the future of the fund. "RPs and contractors are worried that we're going to tell them six months from now that they're not going to get reimbursed," Hooker said. He said the community deserves a statement as to the condition of the fund so they can plan for the future. Maggiore said the department has no intention of approving workplans for reimbursement purposes if it can't pay the claims. "I can understand the rumors going around," he said. "Call us and we'll make sure you get the information necessary for you to make sound business decisions."

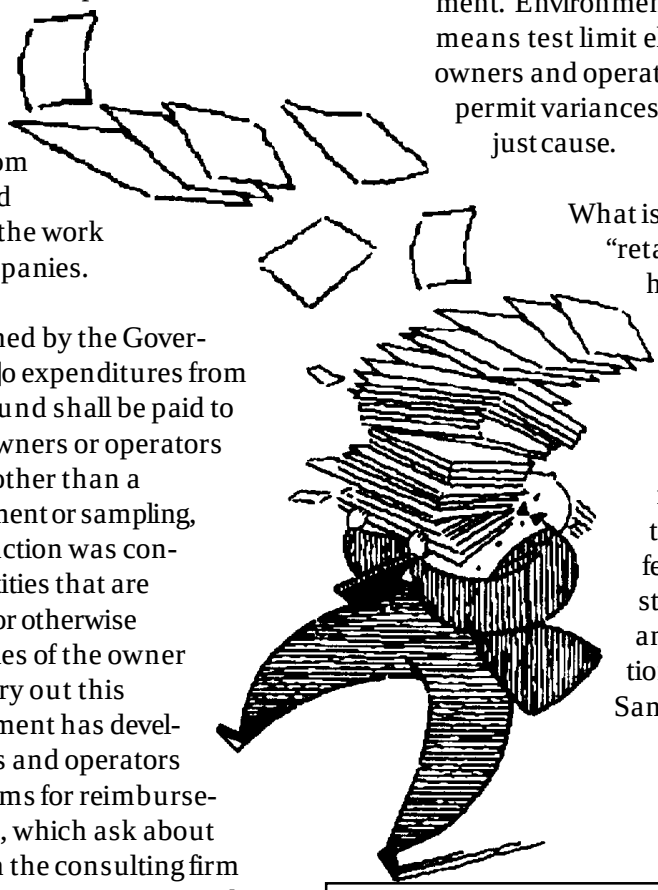
It is unclear when the corrective action fund will no longer meet FR requirements for corrective action. When this happens, you will need to get full (both corrective action and third party) coverage from your insurance company. Federal and state law requires that you clean up a leaking underground storage tank -- fund or no fund -- and having corrective action insurance will help you pay for cleanup when the fund is not available.

The processing of reimbursement claims slowed down recently because the Department needed to make a budget adjustment request to permit access to the corrective action fund for the $3.6 million needed. The request was granted and claims approved for payment are being processed. If you need to know the status of a claim, you should feel free to call Rita Gonzales at the UST Bureau in Santa Fe (827-2878)

UPDATES

DISCLAIMERS REQUIRED ON CLAIM FORMS
New law prohibits payments to affiliates

Beginning June 19, all claims for reimbursement from the corrective action fund must be accompanied by a disclaimer. As we reported in the last issue of *Tank Notes*, the legislature passed a bill this year which, among other things, prohibits payments from the fund to owners and operators for most of the work done by affiliated companies.



Senate Bill 11, as signed by the Governor, provides that "[n]o expenditures from the corrective action fund shall be paid to or on behalf of tank owners or operators for corrective action, other than a minimum site assessment or sampling, where the corrective action was conducted by firms or entities that are subsidiaries, parents or otherwise affiliate firms or entities of the owner or operators." To carry out this provision, the Department has developed forms for owners and operators to use when filing claims for reimbursement. The new forms, which ask about any affiliate interest in the consulting firm doing the work, must accompany every claim filed on or after June 19.

There are two forms available, new claim forms which include the disclaimer language and, for people using the old claim forms, a separate disclaimer form which can be attached to the claim. Please call 827-2716 to obtain copies.

MEANS TEST: Variances from the "retail" requirement

Unless the owner or operator qualifies for a waiver under the means test, applicants for reimbursement of cleanup expenses from the corrective action fund must first pay $10,000 toward the minimum site assessment. Environment Department regulations on the means test limit eligibility for waiver to "retail" owners and operators. However, the regulations also permit variances from some of the regulations for just cause.

What is just cause for a variance from the "retail" limitation? The UST Bureau has concluded that just cause means financial hardship in that context. So, if you would meet the means test except for the fact that you don't sell gasoline and you can show financial hardship, you will need to submit copies of the last three years of the company's federal tax returns and a financial statement listing the company's debts and assets. If you have any questions, please call the UST Bureau in Santa Fe.

Draft regulations available for comment

Working groups have been racing against the clock to draft the regulations required by Senate Bill 11. They hope to have drafts ready for public distribution by mid-June so that hearings can be scheduled for mid-August. For information on the regulations being developed * to require that payments made from the fund be based on a competitive bid procedure using technical merit and cost-effectiveness, call Anna Richards at 827-0173, * to provide for cleanup contractor certification, call Gregg Crandall at 841-9462, and * to address priorities for payment if and when the fund can't pay all claims, call Shelda Sutton-Mendoza at 827-2932.